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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/336,636	06/18/1999	KAZUTOMO HASEGAWA	FUJA-16.217	7893

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EXAMINER	
KUMAR, PANKAJ	

ART UNIT	PAPER NUMBER
2631	17

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/336,636	HASEGAWA ET AL.	
	Examiner	Art Unit	
	Pankaj Kumar	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-18,20-32,35 and 36* is/are allowed.

6)☒ Claim(s) *19, 33, 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Spelling of "discrete" is incorrect in the specification on page 2 line 7. Appropriate correction is required.

Response to Arguments

2. Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

Response to Amendment

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 34 is rejected under 35 U.S.C. 102(b) as being anticipated by May 3770894.

5. As per claim 34, May teaches a digital subscriber line communicating system for communicating through a communication line, including: means for generating a sliding window (May fig. 16: load buffer in line 751, update buffer in line 783, fig. 17: load channel line 811, clear buffer line 835) based on a timing signal representing a periodical noise duration (May paragraph 176 col. 24 lines 16-17: "In decision box 784 the buffer status is changed to channel noise timing (CNT/BSS)."; fig. 16: noise in line 791; fig. 17 load channel occurs based on fig. 16); and means for discriminating, based on a status of said sliding window, which kind of durations of said periodical noise duration a transmitting DMT symbol belongs to (May fig. 16:

types of noise in line 791 with blocks 800, 795, 796; col. 24 lines 66-68: "... channel check status update is requested when the buffer status store indicates channel noise timing (SO=CNT) is complete (BDO=150)."); (May col. 24 lines 23-42, paragraph 177); (May fig. 19: DMT symbol with 1800 Hz tone and noise tone both generate symbols and they are discrete in time or frequency).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 19 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang 6021500.

8. As per claim 19, Wang teaches the limitations of claim 19 including said central office (Wang: Wang's location) comprising a phase-locked loop circuit (Wang fig. 16: 1601, 1602, 1603, 1613) for synchronizing a network timing reference signal (Wang fig. 16: buslclk), having a frequency higher than the frequency of a first timing signal (Wang fig. 7: not in Wang but would be obvious as explained below), with an oscillating signal (Wang fig. 16: system clock 120) of a crystal oscillator (Wang paragraph 8: "Processor 100 receives an external system clock 120 from oscillator 122. Oscillator 122 may be a crystal, clock generating circuit, digital clock circuit, or any other clock generating device.") provided in said central office (Wang: location of its device), to generate a master clock signal (Wang fig. 16: core clock); and a timing signal

regenerating circuit (Wang fig. 16: 1607) for shifting the phase of said first timing signal (Wang fig. 16: 1607 states "misaligned busclk detector" so it will try to align busclk; also paragraph 44: "The BUSCLK generation logic 600 generates BUSLCLK having a first aligned bus clock cycle in core clock 1, and a second aligned bus clock cycle in core clock 3.") to provide a synchronization in phase with the phase of said master clock signal (Wang fig. 16: core clock) so as to generate a second timing signal to be used in said central office (Wang fig. 1, 3, 16: outputs of busen generator 1614, gnsclk, gnslclk, busrclk, busen1, busen2, gnsclk_en, or any of the other signals which have not been mentioned). What Wang does not teach is having a frequency higher than the frequency of a first timing signal since busclk sometimes has a higher frequency than buslclk and sometimes has a lower frequency than buslclk. It would have been obvious to one skilled in the art at the time of the invention to modify Wang to teach having a frequency higher than the frequency of a first timing signal. One would be motivated to do so since Wang already teaches that at least some of the time, busclk has a higher frequency than buslclk.)

9. Rejection of claim 19 applies for claim 33 also.

Allowable Subject Matter

10. Claims 1-18, 20-30, 31, 32, 35, 36 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: The art of record does not suggest the respective claim combinations together and nor would the respective claim combinations be obvious with the following underlined portions:

12. As per claims 1 and 20: ***whether a transmitting data symbol belongs to a far end cross talk duration at said receiving side or a near end cross talk duration at said receiving side***.

13. As per claims 17, 18, 31, 32: ***whether a received DMT symbol belongs to a far end cross talk duration at said remote terminal or a near end cross talk terminal at said remote terminal***

14. As per claim 35: ***means for performing an initial training of a receiver equalizer according to said status of sliding window***

15. As per claim 36: ***a sliding window generating unit for generating a sliding window based on a TCM-ISDN timing signal***

16. Claims 2-16 and 21-30 are dependent on certain independent claims cited above.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Wed and Thurs after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PK

TEMESGHEN GHEBRETINSAE
PRIMARY EXAMINER